

### **REMARKS/AGRUMENTS**

Reconsideration of this application, as amended, is respectfully requested. The following remarks are responsive to the Office Action mailed October 7, 2003.

Claims 1-17 are pending.

The Examiner objected to the drawings. Appropriate corrections are submitted for the Examiner's approval.

The Examiner objected to the specification. Appropriate corrections are submitted herewith.

Claims 3 and 8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-3, 6-8, and 11-13 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,359,863 of Varma, et al. ("Varma").

Claims 16 and 17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,696,764 of Soumiya, et al. ("Soumiya").

Claims 4-5, 9-10, and 14-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Varma in view of Soumiya.

Claims 1, 3, 6, 8, 11, and 16 have been amended. It is respectfully submitted that no new matter has been added.

### **OBJECTIONS TO THE DRAWINGS**

The Examiner objected to the drawings as failing to comply with 37 C.F.R. 1.84 (p) (5). Applicants have amended Figure 3 in accordance with the Examiner's suggestions.

Additionally, per the Examiner's suggestion, a red-inked sheet indicating the proposed drawing corrections to Figure 3 is submitted herewith in compliance with 37 C.F.R. § 1.85. No new matter has been added.

### **CLAIM REJECTIONS**

#### **35 USC §112**

The Examiner has rejected claims 3 and 8 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 and 8 have been amended, and applicants respectfully submit that the Examiner's rejections have been overcome.

#### **35 USC §102(e)**

The Examiner has rejected claims 1-3, 6-8, and 11-13 under 35 U.S.C. §102(e) as being anticipated by Varma. Applicants submit that claims 1-17 are not anticipated by Varma. In regard to the rejection of claims 1, 6, and 11, the Examiner has stated in part that:

Varma represent the pseudocode used in detecting and calculating the change of the available output bandwidth of a given line used in an ATM switch. Lines 8 & 9 in that same figure shows how the new bandwidth value,  $B_a$ , is applied to update the variable  $B_{eq}$ , which represents the new bandwidth of the channels assuming each will receive an equal portion of the available bandwidth.  
(10/7/03, Office Action, p. 3)

Applicant respectfully submits that claims 1-5 are not anticipated by Varma. Amended claim 1 recites the feature of "*the communication channel including a plurality of lines, wherein the change includes ... lines becoming active and ... lines being broken. . . .*" (Emphasis added) This feature is not disclosed by Varma, as shown by the following analysis. Varma describes a rate allocation system and method for ATM switched networks. (Varma, title). As pointed out by the Examiner, Varma estimates a bandwidth parameter  $B_a$ , representing the available

bandwidth on a link. Varma's estimation technique is to take the total possible bandwidth B, and subtracting bandwidth values for minimum cell rate (MCR) of connections on the link, unused bandwidth on the link, and other connections. (Varma, col. 17, ll. 35-45) However, Varma is silent on how to determine the total possible bandwidth B, and does not contemplate what happens when links break, or activate, anywhere in his patent. Therefore, Varma does not disclose "*the communication channel including a plurality of lines, wherein the change includes ... lines becoming active and ... lines being broken. . . .*" as taught by claim 1. Because Varma does not disclose this feature as taught by claim 1, applicants respectfully submit that claim 1 and claims 2-5 which depend from claim 1, are not anticipated under 35 U.S.C. §102(e) by Varma.

The Examiner also rejected independent claim 6 under 35 U.S.C. §102(e) for the reasons set forth in the rejection of claim 1. Claim 6 discloses substantially similar limitations as claim 1, and recites "*the communication channel including a plurality of lines, wherein the change includes ... lines becoming active and ... lines being broken. . . .*" (Emphasis added) Because Varma does not disclose this feature as taught by applicants' claim 6 from which claims 7-10 depend, for the reasons discussed above with regard to claim 1, applicants respectfully submit that claims 6-10 are not anticipated under 35 U.S.C. §102(e) by Varma.

The Examiner also rejected independent claim 11 under 35 U.S.C. §102(e) for the reasons set forth in the rejection of claim 1. Claim 11 discloses substantially similar limitations as claim 1, and recites "*the communication channel including a plurality of lines, wherein the change includes ... lines becoming active and ... lines being broken. . . .*" (Emphasis added) Because Varma does not disclose this feature as taught by applicants' claim 11 from which claims 12-15 depend, for the reasons discussed above with regard to claim 1, applicants respectfully submit that claims 11-15 are not anticipated under 35 U.S.C. §102(e) by Varma.

**35 USC §102(b)**

The Examiner has rejected claims 16-17 under 35 U.S.C. §102(b) as being anticipated by Soumiya. Applicants submit that claims 16-17 are not anticipated by Soumiya. In regard to the rejection of claims 16-17, the Examiner has stated in part that:

Figure 7 in Soumiya discloses the workings of an ATM switch that connects various input sources (Input Links #1 –N) to various output destinations (Output Links #1 – N). Inside this switch, resides a Quality of Service Controller (70) and a Shared Buffer (62).  
(10/7/03, Office Action, p. 4)

Applicant respectfully submits that claims 16-17 are not anticipated by Soumiya.

Amended claim 1 recites the feature of “*wherein the digital communications switch monitors bandwidth changes in the variable bandwidth bi-directional communication channel.*”(emphasis added) These features are not disclosed by Soumiya, as shown by the following analysis.

Soumiya describes an ATM exchange for monitoring congestion and allocating and transmitting bandwidth guaranteed calls. (Soumiya, title) Soumiya is concerned with problems of long-term congestion, and detecting such congestion. (Soumiya, col. 9, l. 63-col. 10, l. 50). Soumiya’s patent describes monitoring buffer queues to detect such congestion. Consequently, Soumiya does not disclose a *digital communications switch monitors bandwidth changes in the variable bandwidth bi-directional communication channel*. Because Soumiya does not disclose this feature as taught by claim 1, applicants respectfully submit that claim 16 and claim 17 which depends from claim 16, are not anticipated under 35 U.S.C. §102(b) by Soumiya.

**CLAIM REJECTIONS – 35 USC §103 (a)**

The Examiner has rejected claims 4-5, 9-10, and 14-15 under 35 U.S.C. §103(a) as being unpatentable over Varma in view of Soumiya. In regard to the rejection of claims 4-5, 9-10, and 14-15 under 35 U.S.C. §103(a), the Examiner has stated in part that:

By combing Soumiya complete design with Varma's monitoring and handling of the output bandwidth, the result would be that of the current application. It would have be obvious to one skilled in the art at the time the invention was made to combine these two inventions in order to more fully maintain the optimal function of an ATM switch and to reduce potential congestion in both short and long term.  
(10/7/03 Office Action, p. 6).

Applicant respectfully disagrees. Applicant submits that claims 1-17 are not obvious in view of Varma and Soumiya. It is respectfully submitted that it would be impermissible hindsight, based on applicant's own disclosure, to combine Varma and Soumiya.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

However, nowhere is there any indication that the references provide any motivation for the recited combination. Instead, it appears the teachings of the present application have been used as a blueprint to gather together and assemble various components of the prior art in the manner contemplated by applicant. This is a classic example of the use of hindsight reconstruction, and cannot properly be used as grounds for rejecting the present claims.

The U.S. Court of Appeals for the Federal Circuit has strongly criticized such applications of hindsight by specifically indicating that when an obviousness determination is made based upon a combination of references, even a patent examiner "must show reasons that

the skilled artisan, confronted with the same problems as the inventor *and with no knowledge of the claimed invention*, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (Emphasis added). Merely indicating, as the Examiner argues in his Office Action of October 7, 2003, that the claimed invention would be obvious to one of ordinary skill in the art based on the combination of the references is utterly inadequate. *Rouffet*, at 1357. Instead, what is needed is a showing of motivation, either from the references themselves or the knowledge of those of ordinary skill in the art, for the combination being relied upon. *Rouffet*, at 1357.

In the present case, there has been no showing of such motivation. Instead, the Examiner attempts to deconstruct the subject matter of the claims of the present application into its constituent components, states where each such component may be found in one of the cited references, and then concludes that it would have been obvious to combine the references to arrive at the claimed invention. This bare bones analysis is not sufficient to support a determination of obviousness of the present application. The burden is on the Examiner to show *why* one is so motivated as to come up with the combination being relied upon. *Rouffet*, at 1357-1358 ("If such a rote invocation could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever, experience a patentable technical advance. Instead, in complex scientific fields [an infringer or the Patent Office] could routinely identify the prior art elements in an application, invoke the lofty level of skill, and rest its case for [obviousness]. To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.")

In regard to the rejection of claims 4-5, even if Varma and Soumiya were combined, such a combination would lack one or more features of claim 1 from which claims 4-5 depend. Claim 1 recites the feature of "*the communication channel including a plurality of lines, wherein the change includes ... lines becoming active and ... lines being broken. . . .*" (Emphasis added)

This feature is not disclosed by Varma for the reasons discussed above in regard to the rejection of claim 1. Nor does Soumiya disclose this feature. Soumiya describes an ATM exchange for monitoring congestion. (Soumiya, title) More specifically, Sourmiya monitors congestion in buffers for storing ATM cells in a queue. (Soumiya, col. 24, ll. 54-60) Soumiya also provides for quality of service (QOS) Control. (Soumiya, col. 15, l. 15, et seq.) However, Soumiya is not concerned with detecting bandwidth changes on a channel and nowhere, does Soumiya describe a ***“communication channel including a plurality of lines, wherein the change includes ... lines becoming active and ... lines being broken. . . .”***

Thus, because neither, Varma nor Soumiya disclose applicants' claim 1, applicants respectfully submit that claim 1 is not obvious under 35 U.S.C. §103(a) by Varma in view of Soumiya. Given that claims 2-5 depend from claim 1, applicants respectfully submit that claims 1-5 are not obvious under 35 U.S.C. §103(a).

The Examiner also rejected claims 9-10 under 35 U.S.C. §103(a) for the reasons set forth in the rejection of claims 4-5. Claim 6, from which claims 9-10 depend, discloses substantially similar limitations as claim 1 and recites ***“the communication channel including a plurality of lines, wherein the change includes ... lines becoming active and ... lines being broken. . . .”*** Because Varma, in view of Soumiya, does not disclose this feature and given that claims 7-10 depend from claim 6, applicants respectfully submit that claims 6-10 are not obvious under 35 U.S.C. §103(a) by Varma, in view of Soumiya.

The Examiner also rejected claims 14-15 under 35 U.S.C. §103(a) for the reasons set forth in the rejection of claims 4-5. Claim 11, from which claims 14-15 depend, discloses substantially similar limitations as claim 1 and recites ***“the communication channel including a plurality of lines, wherein the change includes ... lines becoming active and ... lines being broken. . . .”*** Because Varma, in view of Soumiya, does not disclose this feature and given that

claims 12-15 depend from claim 11, applicants respectfully submit that claims 11-15 are not obvious under 35 U.S.C. §103(a) by Varma, in view of Soumiya.



For the foregoing reasons, applicant respectfully submits that the applicable objections and rejections have been overcome and that the claims are in condition for allowance. If there are any additional charges, please charge them to our Deposit Account No. 02-2666.

Respectfully submitted,

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